#### ADSTS5A2-1CHM011M

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1.1 x 0.9 x 0.55 mm RoHS/RoHS II Compliant MSL Level = 3

#### **Features**

- Usable Bandwidth of 25MHz
- Balanced Output
- Compact Package Size

## **Applications**

- Mobile Communications
- Cellular, CDMA Systems
- Low Loss RF Filter for Receive Path

### **Electrical Specifications**

Parameters		Specifications					
		Min	Тур	Max			
Nominal Center Frequ		881.5					
Insertion Loss (869.0 ~		1.5	2.0				
Amplitude Ripple (869.0		0.5	1.0				
Input VSWR (869.0		1.7	2.0				
Output VSWR (869.		1.7	2.0				
Amplitude Balance (869.	0 ~ 894.0 MHz) (dB)	-1	-0.4~+0.2	+1			
Phase Balance (869.0 ~	Phase Balance (869.0 ~ 894.0 MHz) (deg)			+10			
	DC ~ 824.0 MHz	50	65				
A 44	824.0 ~ 849.0 MHz	50	57				
Attenuation	914.0 ~ 960.0 MHz	25	36				
(dB)	$960.0 \sim 2000.0 \text{ MHz}$	40	51				
	2000.0 ~ 6000.0 MHz	30	37				
Terminating Source Impedance ( $\Omega$ )			50				
Terminating Load Impedance ( $\Omega$ )			100				
Maximum Input Power (dBm)			15				
DC Voltage (V)			0				

### **Mechanical Specifications**

Parameters	<b>Specifications</b>
Filter Dimension	1.1 x 0.9 x 0.55 mm
Mounting Type	SMD Mount

### **Environmental Specifications**

Parameters	Specifications					
Operating Temperature Range	-30°C ~ +85°C					
Storage Temperature Range	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$					
RoHS/RoHS II Compliant	Yes					
MSL level	3					
ESD	50V (MM), 100V (HBM)					



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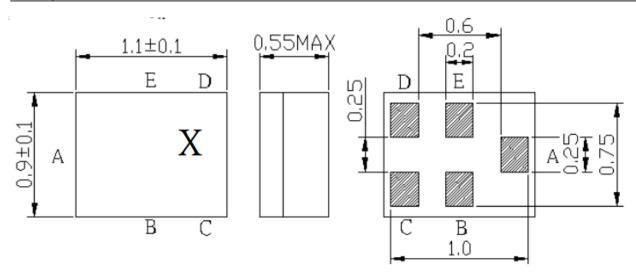


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### **Package Dimensions**



All tolerances are +/-0.05 mm unless otherwise specified Coplanarity: 0.1mm max

1 to 5: Pin numbers

Unit: mm

Pin No.	Function				
A	Input				
В	Ground				
C/D	Balanced Output				
Е	Ground				

### Marking Description:

X: Year/Month Code (Follow the table)

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2013	A	В	С	D	Е	F	G	Н	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	ь	С	d	e	f	g	h	j	k	1	m
2016	n	р	q	r	S	t	u	v	W	X	у	Z
2017	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2018	N	<u>P</u>	Q	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	V	W	<u>X</u>	Y	<u>Z</u>
2019	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	g	<u>h</u>	i	<u>k</u>	1	<u>m</u>
2020	<u>n</u>	<u>p</u>	<u>q</u>	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	v	W	<u>X</u>	y	<u>z</u>



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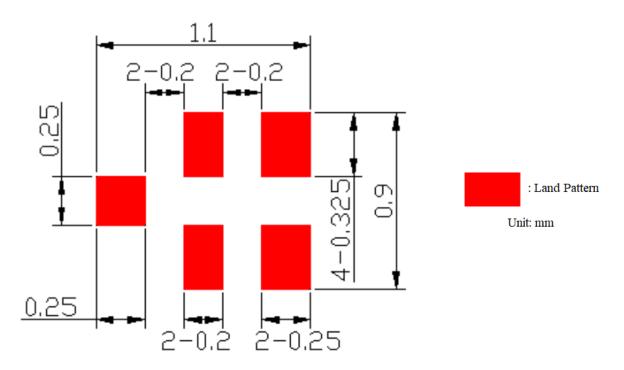


Check Inventory (>)

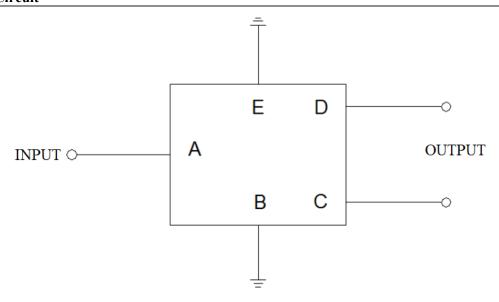


1.1 x 0.9 x 0.55 mm **RoHS/RoHS II Compliant** MSL Level = 3

### **PCB** Footprint



### **Measurement Circuit**



Source Impedance:  $50\Omega$ 

Load Impedance:  $100\Omega$ 



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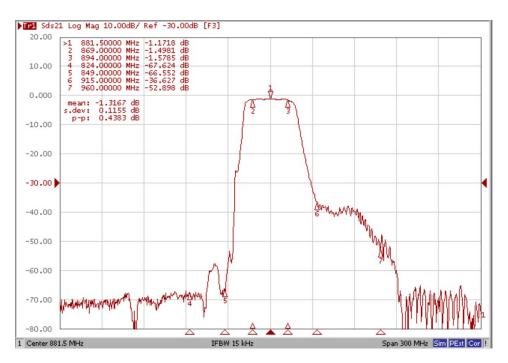
Check Inventory (>)



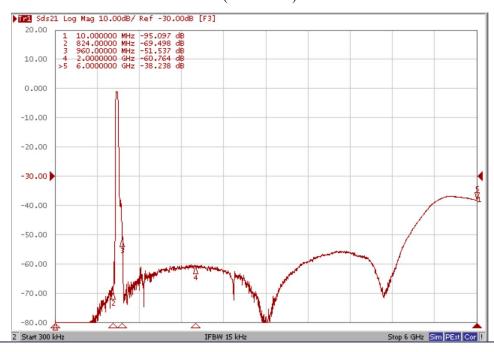
1.1 x 0.9 x 0.55 mm RoHS/RoHS II Compliant MSL Level = 3

#### **Transmission Characteristics**

## S21 (Narrowband)



#### S21 (Broadband)





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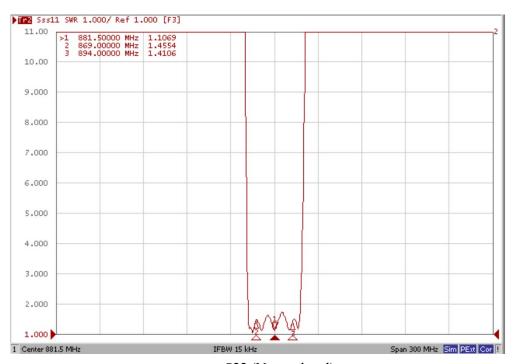
Check Inventory (>)



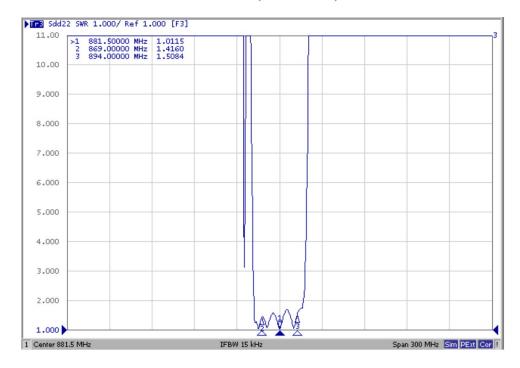
1.1 x 0.9 x 0.55 mm **RoHS/RoHS II Compliant** MSL Level = 3

### **VSWR Graphs**

### S11 (Narrowband)



S22 (Narrowband)





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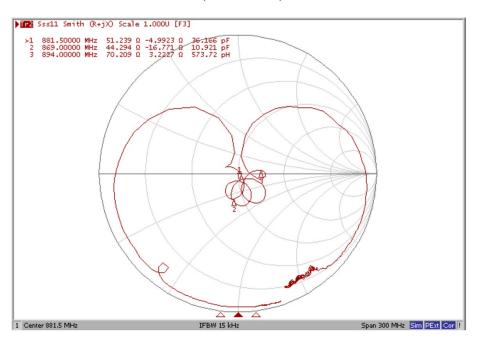
Check Inventory (>)



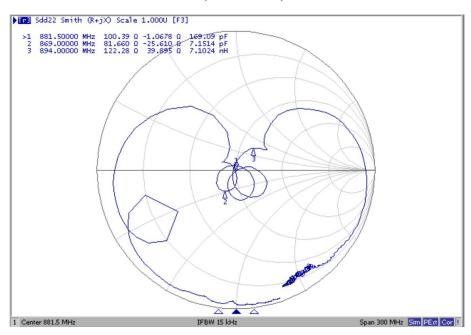
1.1 x 0.9 x 0.55 mm **RoHS/RoHS II Compliant** MSL Level = 3

### **Smith Charts**

### S11 (Narrowband)



### S22 (Narrowband)





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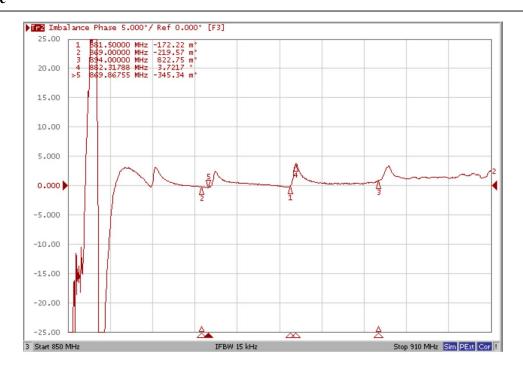


1.1 x 0.9 x 0.55 mm **RoHS/RoHS II Compliant** MSL Level = 3

### **Amplitude Balance**



#### **Phase Balance**





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Request Samples (>)



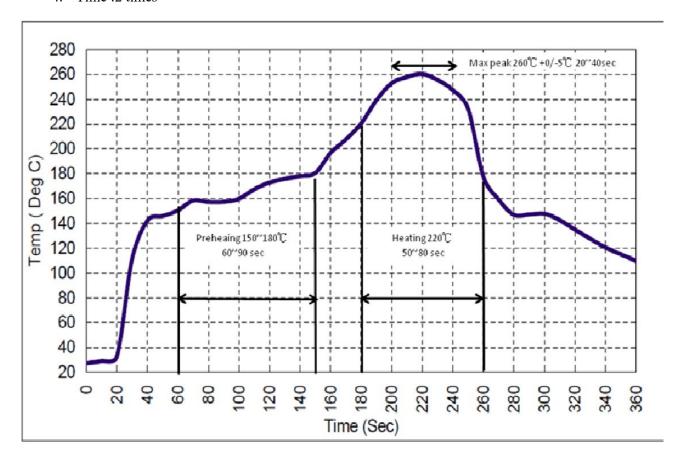
Check Inventory (>)



1.1 x 0.9 x 0.55 mm **RoHS/RoHS II Compliant** MSL Level = 3

#### **Recommended Reflow Profile**

- 1. Preheating shall be fixed at 150°C~180°C for 60-90 seconds.
- 2. Ascending time to preheating temperature 150°C shall be 30 seconds minimum.
- 3. Heating shall be fixed at 220°C for 50~80 seconds and at 245~260°C peak (min 10sec.)
- 4. Time: 2 times





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Request Samples (>)



Check Inventory (>)



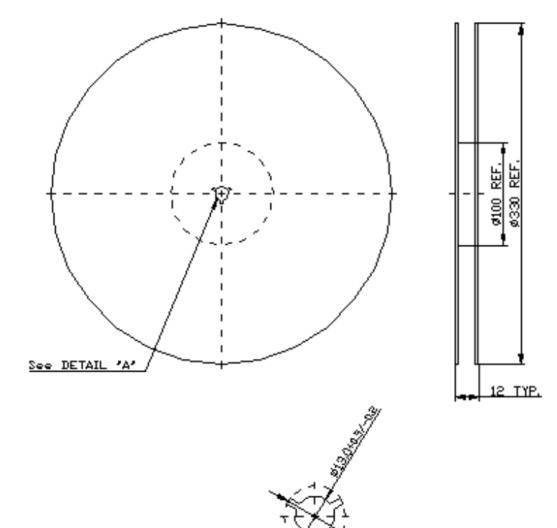
1.1 x 0.9 x 0.55 mm **RoHS/RoHS II Compliant** MSL Level = 3

## **Packaging**

Packaging Type: Reel and Tape

Pieces per Reel: 5k

**Reel Dimension** 







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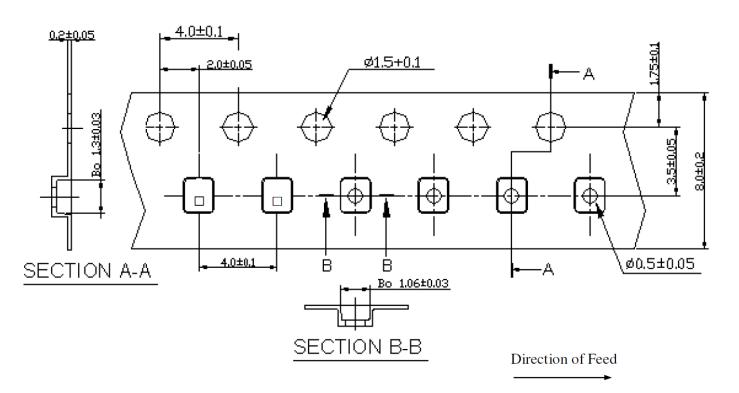


Check Inventory (>)



1.1 x 0.9 x 0.55 mm RoHS/RoHS II Compliant MSL Level = 3

Tape Dimension



Unit: mm

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